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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,069	12/28/2005	Stefan Capelle	VANM199.002APC	1840
20995 7590 11/18/2008 KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614				
EXAMINER KING, FELICIA C				
ART UNIT 4152		PAPER NUMBER		
NOTIFICATION DATE 11/18/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/535,069

Applicant(s)

CAPELLE ET AL

Examiner

FELICIA C. KING

Art Unit

4152

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-21 and 23-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-21 and 23-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date 5/12/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This detailed action is in response to claims 1-9, 11-21, and 23-28 filed 12/28/05.

Claims 10 and 22 are cancelled.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1, 2, 4, 6, 11-13, 16-18, 20, 23, and 24 are rejected under 35**

U.S.C. 102(b) as being anticipated by Ano et al. (U.S. Patent Number 3,536,498).

3. **Regarding Claim 1:** Ano et al. discloses a method to increase flavor metabolism of yeast in long fermentation system [col. 2, lines 19 – 26 and col. 3, Fermentation power]; the method comprising the step of adding to the fermentation system a sufficiently effective amount of an ingredient formulation comprising a free amino acid blend [col.2, lines19-21]; the amino acid blend being comprising at least one amino acid selected from the group consisting of Leucine, Valine, Iso-Leucine and Phenylalanine [col. 2, lines 36-38].

4. **Regarding Claim 2:** Ano et al. discloses the method of Claim 1 where in the amino acid blend comprises at least Phenylalanine [col. 2, line 38].

5. **Regarding Claim 4:** Ano et al. discloses, the method according to Claim 1, wherein the amino acid ratio of the blend is: Leucine: 0 to 4; Valine: 0 to 3; Iso- Leucine:

0 to 3; and Phenylalanine 0 to 3, with the proviso that at least one amino acid selected from the group consisting of Leucine, Valine, Iso-Leucine and Phenylalanine is present in the blend [col. 2, table 1 where the ratio is Leucine 1/Iso-Leucine 1/Phenylalanine .5].

6. **Regarding Claim 6:** Ano et al. disclose, the method of Claim 1, where the dosage of the blend of amino acids is at least 0.001% of a final product [col. 2, lines 41-44 and col. 4, line 34].

7. **Regarding Claim 11:** Ano et al. discloses, the method according to Claim 1 where the amino acid blend is added to raw materials used in fermentation systems selected from the group consisting of flour, malt extract, wheat germs, or other germs, a fermentable carbon source, bran or and malt [col. 4, line 30].

8. **Regarding Claim 12:** Ano et al. discloses, the method according to Claim 1, further comprising the step of adding at least one compound selected from the group consisting of other enhancers of the flavor metabolism, flavor enhancers and yeast [col. 2, lines 30-34; col. 4, line 34].

9. **Regarding Claim 13:** Ano et al discloses, the method according to Claim 1, which further-comprising the step of adding a carbon source [col. 4, line 33 where the carbon source is sugar].

10. **Regarding Claim 16:** Ano et al. discloses a fermentation product obtainable via the method of Claim 1 [col. 3, Table 1].

11. **Regarding Claim 17:** Ano et al discloses an ingredient formulation comprising a free amino acid blend which comprises at least one amino acid selected from the group consisting of Leucine, Valine, Iso-Leucine and Phenylalanine [col. 2, lines 36-38]., and

wherein the amino acid blend increases the flavor metabolism of yeast and/or bacteria in long fermentation systems [col. 2, lines 19 – 26 and col. 3, Fermentation power].

12. **Regarding Claim 18:** Ano et al. discloses an ingredient formulation according to claim 17, wherein the amino acid blend comprises at least Phenylalanine [col. 2, line 38].

13. **Regarding Claim 20:** Ano et al. discloses the ingredient formulation according to Claim 17, wherein the amino acid ratio of the blend is: Leucine: 0 to 4; Valine: 0 to 3; Iso-Leucine: 0 to 3; and Phenylalanine 0 to 3 with the proviso that at least one amino acid selected from the group consisting of Leucine, Valine, Iso-Leucine and Phenylalanine is present in the blend [col. 2, table 1 where the ratio is Leucine 1/Iso-Leucine 1/Phenylalanine .5].

14. **Regarding Claim 23:** Ano et al discloses the ingredient formulation according to Claim 17 further comprising yeast [col. 2, lines 30-34; col. 4, line 34].-

15. **Regarding Claim 24:** Ano et al. discloses the ingredient formulation according to claim 26, where the combination has a dry matter content of at least 90% [col. 3, lines 33-34].

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

17. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

18. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

19. **Claims 3, 5, 19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ano et al. (U.S. Patent Number 3,536,498), and further in view of Wiseblatt (U.S. Patent Number 3,304,184).**

20. **Regarding Claim 3:** The method of Claim 1, where the amino acid blend comprises at least Leucine, Valine, Iso-Leucine and Phenylalanine.

21. Ano discloses leucine, iso-leucine and phenylalanine as discussed above but does not explicitly disclose valine as an amino acid for use in the formulation.

22. However, Wiseblatt discloses Valine, as an amino acid for the improvement of flavor in bread [col. 2, line 30 and line 69-70].

23. Ano and Wiseblatt are analogous art because they are from the same field of endeavor which is improving flavor in bread products.

24. At the time of the invention, it would have been obvious to one having ordinary skill in the art having the teachings of Ano and Wiseblatt before him or her to modify the preferred amino acid blend of Ano to incorporate the valine of Wiseblatt because valine can be substituted for other amino acids allowed for in Ano. Further, valine is desirable because valine contributes to the strong yeasty flavor of bread [col. 2, line 30].

25. **Regarding Claim 5:** the method according to claim 1, wherein the amino acid ratio of the blend is: Leucine: 2; Valine: 0.6; Iso-Leucine: 0.5; and Phenylalanine 0.5. Ano et al. discloses where the ratio is Leucine 1/Iso-Leucine 1/Phenylalanine .5 [col. 2, table 1] but does not disclose a ratio for Valine.

26. However, Wiseblatt discloses Valine as an amino acid for the improvement of flavor in bread [col. 2, line 30 and line 69-70] as discussed above in "Regarding Claim 3."

27. Further, Wiseblatt discloses that the flavor of bread may be modified by using various mixtures of amino acids in suitable proportions [col. 2, lines 47-48].

28. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the ratio of amino acids for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272.

29. **Regarding Claim 19:** The ingredient formulation according to claim 17, wherein the amino acid blend comprises at least Leucine, Valine, Iso-Leucine and Phenylalanine.

30. Ano discloses leucine, iso-leucine and phenylalanine as discussed above but does not explicitly disclose valine as an amino acid for use in the formulation.

31. However, Wiseblatt discloses Valine, as an amino acid for the improvement of flavor in bread [col. 2, line 30 and line 69-70].

32. Ano and Wiseblatt are analogous art because they are from the same field of endeavor which is improving flavor in bread products.

33. At the time of the invention, it would have been obvious to one having ordinary skill in the art having the teachings of Ano and Wiseblatt before him or her to modify the preferred amino acid blend of Ano to incorporate the valine of Wiseblatt because valine can be substituted for other amino acids allowed for in Ano. Further, valine is desirable because valine contributes to the strong yeasty flavor of bread [col. 2, line 30].

34. **Regarding Claim 21:** Ano et al. discloses the ingredient formulation according to claim 17 wherein the amino acid ratio of the blend is: Leucine: 2; Valine: 0.6; Iso-Leucine: 0.5; and Phenylalanine: 0.5 [col. 2, table 1].

35. However, Wiseblatt discloses Valine, as an amino acid for the improvement of flavor in bread [col. 2, line 30 and line 69-70] as discussed above in "Regarding Claim 3."

36. Further, Wiseblatt discloses that the flavor of bread may be modified by using various mixtures of amino acids in suitable proportions [col. 2, lines 47-48].

37. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the ratio of amino acids for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272.\

38. **Claims 7 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ano et al. (U.S. Patent Number 3,536,498) in further view of C. Thiele et al., Cereal Chemistry, Vol. 79, Number 1.**

39. **Regarding Claim 7:** the method according to Claim 1 wherein the dosage of the blend of amino acids is about 0.0375% on total flour of a bakery product.

40. Ano et al. discloses, a blend of amino acids is about 0.001% on total flour of a bakery product [col. 2, lines 41-44 and col. 4, line 34] but does not disclose about .0375% on total flour.

41. Thiele discloses that increasing the concentration of free amino acids improves the flavor of bread [Thiele, abstract]. Thus, the increase in the percentage of free amino acids from 0.001% to about .0375% is a result effective variable in the improvement of flavor in a bakery product.

42. Ano and Thiele are analogous art because they are from the same field of endeavor which is the improvement of bread flavor.

43. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Ano and Thiele before him or her to modify the percentage of amino acid blend in Ano to a higher percentage as taught by Thiele because Thiele teaches that a higher percentage of amino acid will enhance flavor in

bread. Therefore, it would have been obvious to utilize an amino acid blend at higher an amino acid percentage to obtain a more flavorful bread.

44. Further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the amount of the blend of amino acids for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272.

45. **Regarding Claim 27:** The method of Claim 6, wherein the dosage of the blend of amino acids is at least 0.05% on total flour of the final product.

46. Ano discloses about 0.001% on total flour of final product [col. 2, lines 41-44 and col. 4, line 34] but does not disclose about 0.05% on final product.

47. Thiele discloses that increasing the concentration of free amino acids improves the flavor of bread [Thiele, abstract]. Thiele discloses that increasing the concentration of free amino acids improves the flavor of bread [Thiele, abstract]. Thus, the increase in the percentage of free amino acids from 0.001% to about .05% is a result effective variable in the improvement of flavor in a bakery product.

48. Ano and Thiele are analogous art because they are from the same field of endeavor which is the improvement of bread flavor.

49. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Ano and Thiele before him or her to modify the percentage of amino acid blend in Ano to a higher percentage as taught by Thiele because Thiele teaches that a higher percentage of amino acid will enhance flavor in

bread. Therefore, it would have been obvious to utilize an amino acid blend at higher an amino acid percentage to obtain a more flavorful bread.

50. Further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the amount of the blend of amino acids for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272.

51. **Claims 8, 9, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ano et al. (U.S. Patent Number 3,536,498), and further in view of Ziemke et al (U.S. Patent Number 4,034,125).**

52. **Regarding Claim 8:** the method according to claim 1, wherein the amino acid blend is added to a pre-dough or sourdough system.

53. Ano et al. disclose as discussed above but does not disclose a sourdough system.

54. However, Ziemke et al. disclose a sourdough system [col. 1, lines 5-6].

55. Ano and Ziemke et al. are analogous art because they are from the same field of endeavor which is bread improving additives.

56. At the time of the invention it would have been obvious to one having the teachings of Ano and Ziemke before him or her to modify the process of Ano for the sourdough process of Ziemke because long fermentation times are typical of the sourdough process [col. 1, lines 5-6; col.1, lines 26-29].

57. **Regarding Claim 9:** the method according to claim 8, where the sourdough is a fresh sourdough or dried sourdough.

58. Ano et al. disclose as discussed above but does not disclose a fresh or dry sourdough.

59. However Ziemke discloses a dried sourdough [col. 1, lines 49-51].

60. At the time of the invention it would have been obvious to one of ordinary skill in the art having the teachings of Ano and Ziemke before him or her to modify the dough of Ano for the dried sourdough of Ziemke because a baker or other user to find it easier to work with dried sourdough as it is easier to handle [col. 1, 49-51].

61. **Regarding Claim 28:** the ingredient formulation of Claim 23, further comprising sourdough.

62. Ano et al. disclose as discussed above but does not disclose a sourdough.

63. However, Ziemke discloses a sourdough [col. 1, lines 5-6; col.1, lines 26-29] as discussed above in "Regarding Claim 8".

64. **Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ano et al. (U.S. Patent Number 3,536,498), and further in view of Lendvay et al. (U.S. Patent Number 3,499,765).**

65. **Regarding Claim 14:** The method according to Claim 1, further comprising the step of adding specific enzymes as selected from the group consisting of proteases, transaminases, carboxylases, dehydrogenases and esterases.

66. Ano discloses as discussed above but does not disclose proteases, transaminases, carboxylases, dehydrogenases or esterases.

67. However, Lendvay discloses proteases [col. 7, line 34].

68. Ano and Lendvay are analogous art because they are from the same field of endeavor which is the improvement of flavor in bread.

69. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Ano and Lendvay before him or her to modify the method of making the composition in Ano to incorporate the protease in Lendvay because proteases can be easily incorporated into a process for making dough as evidenced by the mixtures presented in Lendvay [col. 7, lines 29-35]. Further, the incorporation of the enzyme causes a reaction between amino acids and sugars which result in a bread like flavor [col. 7, lines 12-14].

70. Claims 15 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ano et al. (U.S. Patent Number 3,536,498), and further in view of Johnson (U.S. Patent Number 3,897,568).

Regarding Claim 15: The method according to Claim 1 further comprising the step of adding a protein hydrolysate.

71. Ano discloses as discussed above but does not disclose a protein hydrolysate.

72. However, Johnson discloses a protein hydrolysate [col. 3, lines 58-60].

73. Ano and Johnson are analogous art because they are from the same field of endeavor which is improving flavor in dough.

74. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Ano and Johnson before him or her to modify the process of making the composition in Ano to incorporate the protein hydrolyzate in Johnson because they are commonly incorporated in the production of bread dough

[col.3, lines 58-60]. Further, protein hydrolyzates have been found to improve physical properties such as flavor, in yeast raised products [col. 3, lines 62-64].

75. **Regarding Claim 25:** the ingredient formulation according to Claim 23, produced by co-extrusion or dry blending.

76. Ano et al. discloses as discussed above but does not explicitly disclose an ingredient formulation produced by co-extrusion or dry- blending,

77. However, Johnson discloses an ingredient formulation produced by co-extrusion or dry- blending [col. 8, lines 19-20].

78. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Ano and Johnson before him or her to modify the production of ingredient formulation of Ano for the dry blending of Johnson because dry mixtures can be readily transported, stored, and blended [col.7, lines 42-45].

79. Further, "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art was made by a different process." *In re Thorpe*, 777 F.2d 695, 698.

80. **Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ano et al. (U.S. Patent Number 3,536,498), and further in view of Rudel (U.S. Patent Number 4,961,937).**

81. **Regarding Claim 26:** where the ingredient formulation according to Claim 17 is vacuum packaged.
82. Ano discloses as discussed above but does not disclose a vacuum packaged ingredient formulation.
83. However, Rudel discloses a vacuum packaged dough product [col. 23, lines 9-11].
84. Ano and Rudel are analogous art because they are from the same field of endeavor which is improving or retaining flavor in dough products.
85. At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Ano and Rudel before him or her to modify the disclosure in Ano to include the vacuum packaging step in Rudel because after the production of the ingredient formulation it would have to be preserved in some manner and manner of packaging is a factor in the maintenance of flavor in such compositions [col. 11, lines 51-62].

Conclusion

86. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FELICIA C. KING whose telephone number is (571)270-3733. The examiner can normally be reached on Mon- Thu 7:30 a.m.- 5:00 p.m.; Fri 7:30 a.m. - 4:00 p.m. alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Del Sole can be reached on 571-272-1130. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/FELICIA C KING/
Examiner, Art Unit 4152

/Joseph S. Del Sole/
Supervisory Patent Examiner, Art Unit 4152